BENEFIT AND COST MODELS DEVELOPMENT FOR REMANUFACTURING TIRE BASED ON PRODUCER’S AND CUSTOMER’S PERSPECTIVE

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ABSTRACT

Tire remanufacturing (retreading) is the one way for protect the environment from the scraft tire, because just the tread that can be renewing. So that, the remanufacturing tire have been expected to equivalent with the new tire quality. In this research used the uniformity test for the lifetime data for remanufacturing and new tires. Based on the result of preliminary studies for lifetime of aircraft tire shows that the remanufacturing tires lifetime did not significantly different with the new tires. If that quality and life time are equal, it needed a research about the economics performance for the tire. 

This research develops benefit and cost model for tire remanufacturing based on the producer’s and customer’s perspective which is concern to the tehcnical aspects with the reliability and environmental aspects that are the cost due to using the non-renewable material. That models can be used to know about the economics/financial performance for remanufacturing and new tire. So that, information about the profit range and the opportunity losses can be expected when the producer or customer using remanufacturing tire in their business process. The results from this study indicate that the remanufacturing tire is more profitable for the producer, but for the customer, the new tire is more beneficial. It is influenced by the environmental cost that give an effect for the producer gains, where the environmental cost of new tire more expensive than the remanufacturing tire.

Keywords : remanufacturing tire, benefit and cost models, opportunity losses, environmental cost